

# SIM Server

SS-128/ SS-256/ SS-512

User Manual

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## **1. Introduction**

SIM server is the program to handle our VoIP GSM Gateway and SBK-32: Remote SIM Bank. It offers flexible SIM card timing setting and selectable talk time, time of day based, GSM Group(Assign several SIMs Per GSM Port). Via IP connection, it can allocate any SIM cards to any Gateway of any Channel anytime you want. By using our call termination solution, you can save lots on technicians and traveling for on-site card replacement.

## 2. System Topology



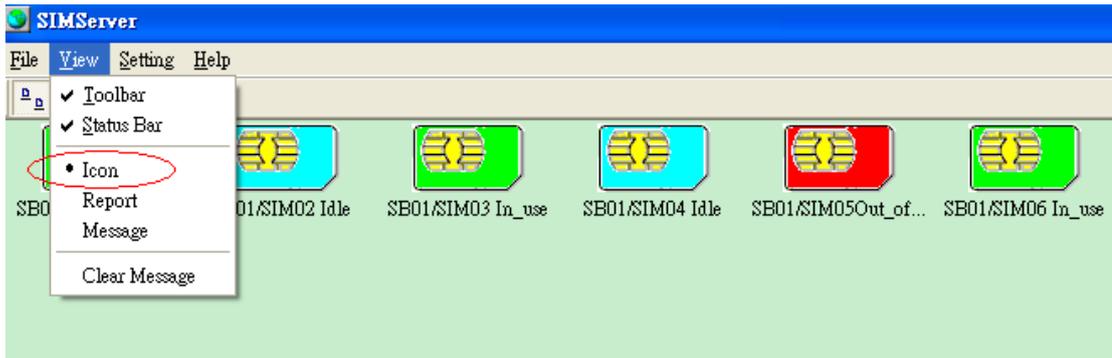
## 3. Functional Descriptions

- Keypro\*1, install program in any PC (Support XP, WIN 7, Vista)
- Manage 4/8/16 SBK-32 SIM Banks, and handle 32 SIM cards per SBK-32.
- Central management and secure storage of all SIM cards
- Control and Supervision of your SIMs from your office
- Allow you to choose the best GSM operators price plan
- Immediate control of all your SIM cards from your office
- Easy and powerful web based management, Easy to configure convenience any time!
- Switch SIM cards between connected gateways, configuration via remote client
- Save huge costs on technicians and traveling to the installation sites
- Save on travel expense and precious time
- Save the cost on site' technicians
- Save the down time between maintenance

## 4. SIM Server Setting (SS128/SS256/SS512)

### 4.1 Interface View

a. SIM Icon: Define the SIM's status by Color

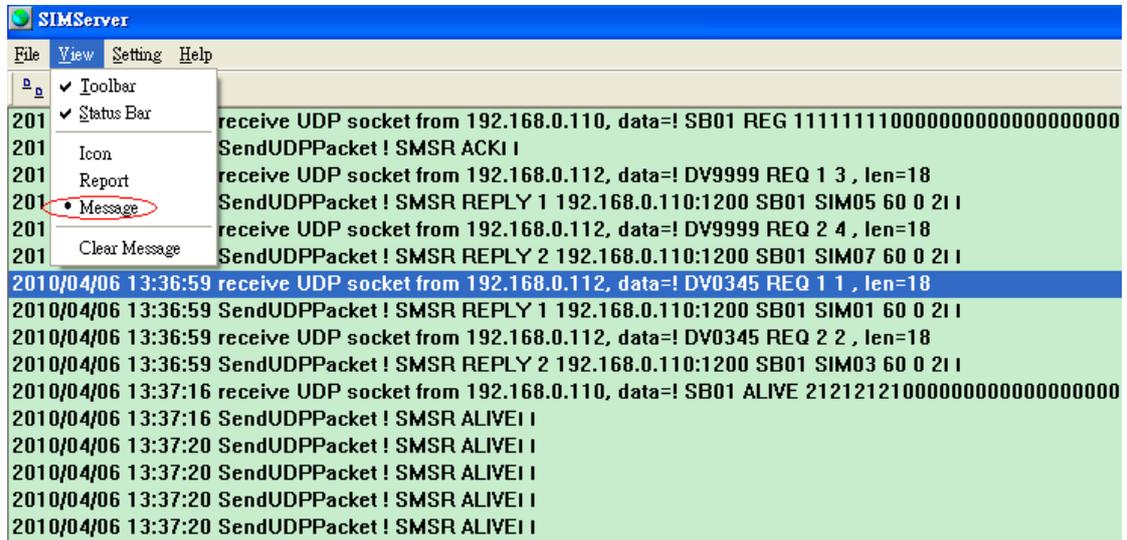


- ✓ Green, means in use: This SIM Card had been hold by SIM Server
- ✓ Blue, means Idle: This SIM card is idle, available to be used
- ✓ Red, means out of talk time: This SIM card had run out of talk time (limited by seconds and date). In this status, SIM card is not available for use. Supervisor can reset its talk time limit to change SIM card status to Idle again.

b. Report: Show complete SIM Card's status, which including talk time, Group, Date, Time range, match to which MV-Device...etc. (See the diagram below)

ID	Talk Time	Group	Day of the Week	Time Range	CU ID	Allocated Time
SB01	39	1	1111111	00:00-23:59	DV0345	2010/04/06 13:36:59
SB01	60	1	1111111	00:00-23:59		
SB01	60	2	1111111	00:00-23:59	DV0345	2010/04/06 13:36:59
SB01	60	2	1111111	00:00-23:59		
SB01	0	3	1111111	00:00-23:59		
SB01	60	3	1111111	00:00-23:59	DV9999	2010/04/06 14:02:50
SB01	1	4	1111111	00:00-23:59	DV9999	2010/04/06 13:58:11
SB01/SIM08 Idle	60	4	1111111	00:00-23:59		

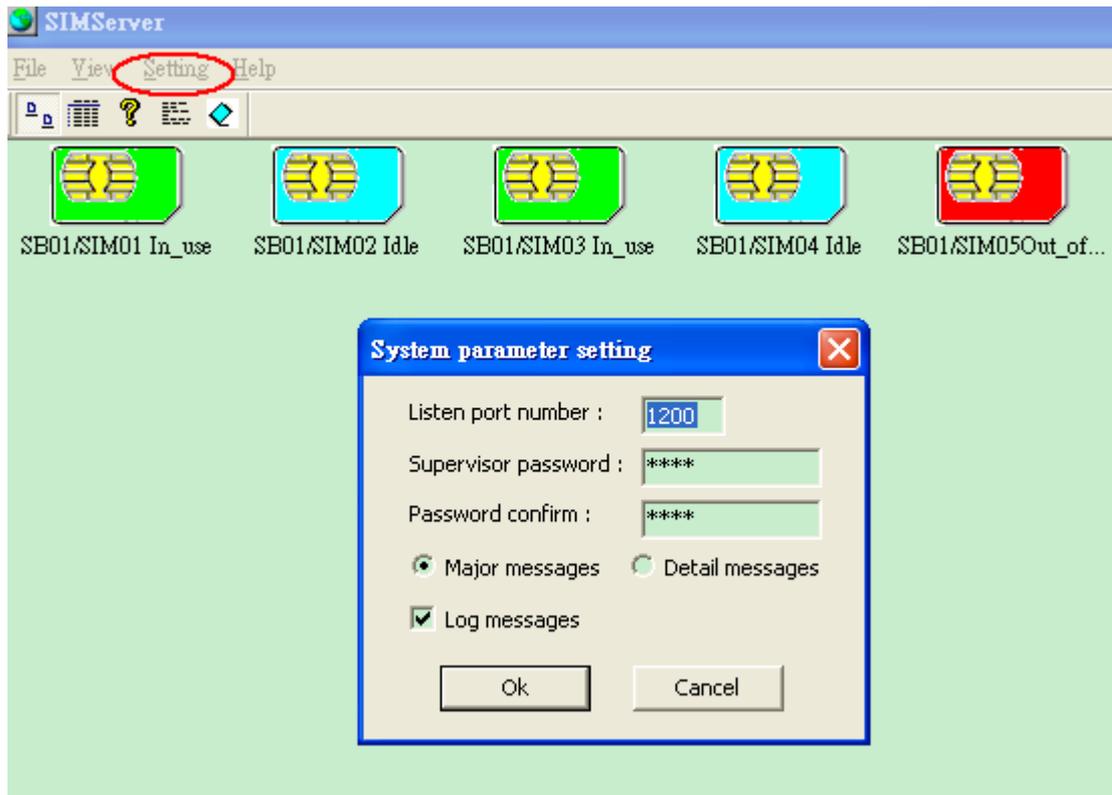
c. Message: Show system message and protocol (See the diagram below)



## 4.2 Setting

System parameter settings:

This setting page is for SIM server listen port, supervisor pass word and log record.



- Listen port number: To manage the port number for SIM Server, the port number is changeable, default value are 1200
- Supervisor Password: Change supervisor password  
Password Confirm: confirm the password again.
- Major Message: Record the major log message  
Detail Message: Record the detail log message
- Log Message: Supervisor can decide to record major log message or detail log message; system will generate a log document automatically, in this document it will record the log message in txt file.

### 4.3 SIM Bank Information

SIMBank ID	Name	Enabled	IP:port
1	1234	Enabled	192.168.0.110:1200
2		Disabled	

5. SIM Bank ID: Current SIM Bank ID, the SIM Bank ID number should match the real SIM Bank's number. E.g. In SIM server settings, you set SIM Bank ID: "1", in remote side, the real SIM Bank should key Bank Num: "1". If so, then SIM Server and SIM bank can match together.
6. Name: it's the identify code between SIM Server and SIM Bank. SIM Server and SIM Bank should key the same "name", if so they can recognized each other. If the "name" between SIM Server and SIM Bank was different, the link will be rejected by SIM Server.
7. Enable or disable : To Enable or Disable SIM Bank
8. IP and port: Should Key the remote side's SIM Bank IP and port to match SIM Server.

To define the time limit on each SIM cards in the SIM Bank

1. SIM ID: Current SIM ID
2. Enable or Disable: To Enable or Disable this SIM card.
3. Group: Supervisor can define the SIM card is belonging to which Group, system will deposit the SIM card to particular GSM module according to Group Settings.

4. Limited Talk Time: To limit talk time on each SIM card, its means to allow how many talk time credit on the SIM card. The value is second, before you make the settings, please mark it.

The screenshot shows a configuration form for a SIM card. At the top, there are fields for 'SIM ID' (set to 1), 'enabled' (checkbox), 'group' (set to 1), and 'limited talk time to' (input field with '0' and 'seconds' label). Below this, there are two rows of settings:
 

- Row 5: 'valid day of the week' with checkboxes for Sun., Mon., Tue., Wed., Thu., Fri., and Sat., all of which are checked.
- Row 6: 'valid time' with an input field containing '00:00~23:59' and an example 'e.g. 08:00~12:29;17:30~19:59'.

 At the bottom, there are two 'limited to' options:
 

- 'limited to' (input field with '0') followed by 'answered calls'.
- 'limited to' (input field with '0') followed by 'continuous no-answered calls'.

 Red circles and numbers 5, 6, 7, and 8 are overlaid on the interface to highlight these specific fields.

5. Valid day of the Week: Allow SIM card can be used by the days of a week, Mark is mean enable to use.
6. Valid time: Allow SIM card can be used by the period of a day.  
e.g. 08:00~12:29;17:30~19:59, means SIM card can only be used on the period of 08:00~12:29 and 17:30~19:59 per day. On the other time, SIM card is not permitted.
7. Limited answered calls: to limit total answered calls, means to allow this SIM card can answer how many calls (only answered calls will be count), if no marks means no limited.
8. Limited continuous no-answer calls: to limit the times of continuous no-answer calls. If the continuous no-answer calls reach the limited, system will auto route the SIM card to next one. If no marks means no limited.
9. Reset talk time option: To arrange the reset talk time of Limited Talk Time. User can reset the limited talk time by daily, monthly and weekly. Please note that system follow only one reset talk time option, it won't able to apply three conditions as total.

This screenshot shows the 'reset talk time option' section of the configuration form. It includes:
 

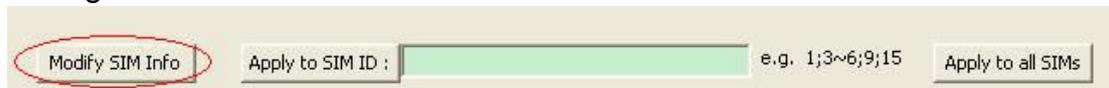
- A 'limited talk time to' field (input '0', label 'seconds') with a red circle around it.
- A 'reset talk time option' section with three radio buttons: 'no reset' (selected), 'reset to' (input '0', label 'seconds'), and 'on day#' (input '1', label 'of the month').
- Below the radio buttons, there are two more options: 'on weekday' (dropdown menu showing 'Sunday') and 'daily' (radio button).

 A red arrow points from the 'limited talk time to' field to the 'reset talk time option' section.

- a. No reset: System follows the priority of limited talk time parameter. When the limited talk time is over, the system won't re-use that SIM anymore.
- b. Reset to... seconds: Please put the same parameter corresponding to limited talk time.

- c. On day#....of the month: To reset the limited talk time on the specific day of the month
- d. On weekday: To reset the limited talk time on the specific day of the week.
- e. Daily: To reset the limited talk time in daily.

If you've done all the settings, please click "Modify SIM Info" to save those settings.



**Quick Setting for multi SIMs:**

When above settings are all compatible for multi SIM cards or for all 32 SIMs on SIM Bank, user can apply those parameter to SIM ID or All SIMs to save time.

- a. Apply to SIM ID: Fill the SIM ID to apply to same parameters. E.g. The settings are compatible for 1<sup>st</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> SIM, please fill "1; 3~5" in this section and so on.  
Note: " ; " is for separate SIM ID and " ~ " is for sequence SIM ID.
- b. Apply to all SIMs: To apply same parameters to all 32 SIM cards on SIM Bank at once.

SIM ID	Enabled	Talk time	Group	Day of the w...	Time range	Answer...	No ans...
1	Enabled	39	1	1111111	00:00~23:59	0	2
2	Enabled	60	1	1111111	00:00~23:59	0	2
3	Enabled	60	2	1111111	00:00~23:59	0	2
4	Enabled	60	2	1111111	00:00~23:59	0	2
5	Enabled	0	3	1111111	00:00~23:59	0	2
6	Enabled	60	3	1111111	00:00~23:59	0	2
7	Enabled	1	4	1111111	00:00~23:59	0	2
8	Enabled	60	4	1111111	00:00~23:59	0	2
9	Disabled	0	1	1111111	00:00~23:59	0	0

All the SIM cards will be switched while it reached any settings (limited). Systems will pick another idle SIM card from the SIM Group for the correspondent GSM module.

If you've done all the settings, please click "OK" which in "Modify SIM Bank Info" to motivate these settings.

SIM Bank ID  name   enabled IP:port

SIMBank ID	Name	Enabled	IP:port
1		Disabled	
2		Disabled	
3		Disabled	
4		Disabled	

SIM ID   enabled group   limited talk time to  seconds

valid day of the week  Sun.  Mon.  Tue.  Wed.  Thu.  Fri.  Sat.

valid time  e.g. 08:00~12:29;17:30~19:59

limited to  answered calls  limited to  continuous no-answered calls

reset talk time option

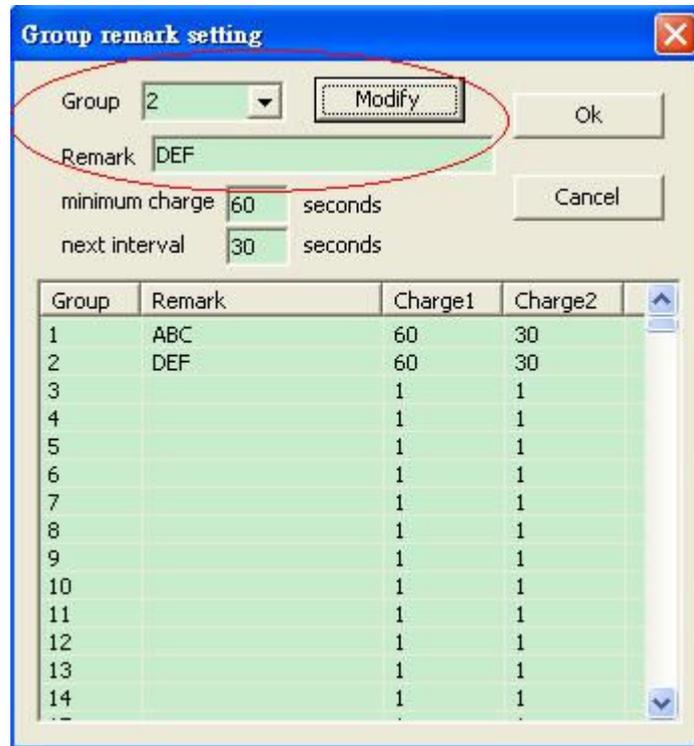
no reset reset to  seconds  on day#  of the month  on weekday   daily

#### 4.4 Group Remark Setting

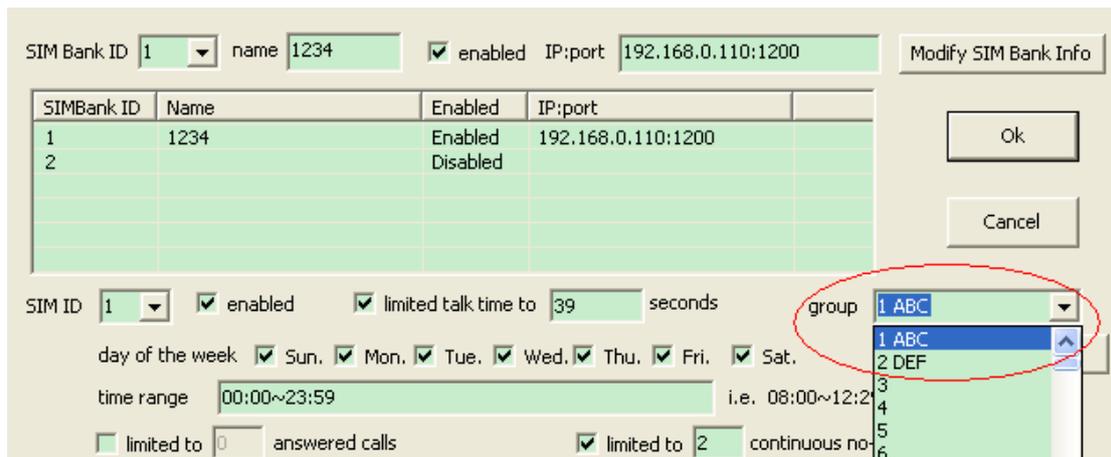
Supervisor can make a note on each SIM Groups to be much easy to distinguish each SIM Groups.

How to make a note:

- a. Choose a Group
- b. Key any information on "Remark Column"
- c. Click Modify to apply it
- d. While you done all the settings, please click OK to motivate it



When finished the setting, you can see the NEW note within Group option. See follow diagram:



Grading Charge talk time option:

User can make the grading the charge talk time to each sim card of the group, total in Two intervals, as below diagram:

Group	Remark	Charge1	Charge2
1	ABC	60	30
2	DEF	60	30
3		1	1
4		1	1
5		1	1
6		1	1
7		1	1
8		1	1
9		1	1
10		1	1
11		1	1
12		1	1
13		1	1
14		1	1
...		1	1

1. Minimum charge: To setup the 1<sup>st</sup> charge talk time. For instance, the timing to be 60 seconds. The system charges immediately after answering the call in 60th seconds. If you want the system start to charge in first second, please put "0" in this section.
2. Next interval: To setup the 2<sup>nd</sup> charge talk time.  
E.g. "0" seconds, system start to charge in first second.  
Or "60" for minimum charge and "30" for next interval, the system charge next interval 30th seconds each after answering the calls in 61th seconds. Following seconds is base on next interval charge talk time.

## 5. MV-37X Setting (VoIP GSM Gateway)

Please check SIM server setting on MV-37X as follow:  
When finished the settings, please submit and click the Save Change.

The screenshot shows the configuration page for SIM Server settings. The sidebar on the left contains the following menu items: Route, Mobile, Status, Settings, Fwd Settings, SMS Agent, SIM Setting (circled in red), and Operator Setting. The main content area is divided into two sections: SIM Card of Mobile 1 and SIM Card of Mobile 2. A red oval highlights the SIM Setting menu item and the configuration fields for both mobile cards.

**CU ID**  (0001 ~ 9999, Server mode)

**SIM Card of Mobile 1**

Mode:  Local  Bank  Server

Mobile ID:  Group:

Card ID:

Bank URL:

Server URL:

Status: a0000000@59.125.1.190:9292

**SIM Card of Mobile 2**

Mode:  Local  Bank  Server

Mobile ID:  Group:

Card ID:

Bank URL:

Server URL:

Status: a0000002@59.125.1.190:9292

1. CU ID: It's the ID for MV and SIM Server Transfer Protocol, within 1~9999. Each MV under same SIM Server should setup different CU ID, and no reusing parameter. E.g. If you put "888" on 1<sup>st</sup> MV-378 that you can't use "888" on 2<sup>nd</sup> MV-378, and so on.
2. Mode
  - a. Local: Disable Remote SIM feature
  - b. Bank: Enable Remote SIM Bank feature, and manage SIM card on SBK-32 SIM Bank.
  - c. Server: Enable Remote SIM Server feature, and allocate SIM cards on SBK-32 SIM Bank.

3. Mobile
  - a. ID: Put in 8 digits (hexadecimal, also base 16), which used for GSM Module ID identification to Remote SIM protocol. User can define the ID. IF it's Server Mode, just leave it default. If it's Bank Mode, No reusing GSM Module ID for same SIM Bank.
  - b. Group: Fill in SIM Group number for Remote GSM module. Server follow SIM Group Number to allocate SIM card to correspond GSM module
4. Card ID: Put in 8 digits (hexadecimal, also base 16), which used for SIM Card ID identification to Remote SIM protocol. User can define the ID. If it's in Server Mode, Card ID can be blank or default. As for Bank Mode, Card ID must be corresponding to SIM Card ID of SIM Bank.
5. Bank URL: If it's Bank Mode, please fill SIM Bank IP and Port Number. On other hand, please leave blank for Server Mode.
6. Server URL: If it's Server Mode, please fill SIM Bank IP and Port Number. On other hand, please leave blank for Bank Mode.
7. Status: User can check the SIM Card ID of GSM module and IP, Port Number of SIM bank.

## 6. SBK-32 Setting (Remote SIM Bank)

Please check SIM server setting on SIM Bank as follow:  
When finished the settings, please submit and click the Save Change.

Bank basic data	
Bank ID	a0000000 (1st SIM ID)
Bank Port	1200 (1024~60000)

Register to SIM server	
Active	<input checked="" type="radio"/> ON <input type="radio"/> OFF
Bank Num	1 (01~99)
Bank Name	bank108
Server URL	59.125.1.191:1200

Bank Setting ---->Register to SIM server

(Follows are the related setting for SIM Bank to connect SIM Server)

1. Active
  - a. ON : Enable SIM Server Feature
  - b. OFF: Disable SIM server feature (Default value). MV connect SIM card via remote SIM Bank instead of SIM Server.
2. Bank Num: Fill in the number (0~99) to correspond to SIM Bank ID of SIM Server. Please refer to SIM Server's setting, and default is 1.
3. Bank Name: Fill in bank name to correspond to SIM Bank Name of SIM Server. Please refer to SIM Server's setting.
4. Server URL: Fill in "SIM server IP: Listen port number" for SIM Bank connection.